

# Digitalization strategies for SMEs: A cost vs. skill approach for website development

Candice Louw \* and Cecile Nieuwenhuizen 

Department of Business Management, College of Business and Economics, University of Johannesburg, Johannesburg, South Africa

\*Corresponding author email: [candice@uj.ac.za](mailto:candice@uj.ac.za)

In the age of the digital revolution, websites are a critical component in establishing an online organizational presence. The main aim of this paper is to deliver a model that may provide guidelines, specifically for Small and Medium Enterprises (SMEs), including those in resource-scarce contexts, in determining the most viable strategy for setting up and managing their own website. The deliverance of the Combined Cost and Technical Skill Model for Website Development contributes not only to the theory on web development, but also offers guidance to SMEs with planning their web development strategies, specifically when taking into account the core components of cost and technical skills in resource-scarce contexts. This, in turn, may assist SMEs with increasing their online presence maturity, possibly also allowing them to compete with larger organizations at an international scale.

Keywords: web development, digital marketing, entrepreneurship, online presence maturity, SMEs

## Introduction

With the advent of the 4<sup>th</sup> industrial revolution hinging on the adoption of major digitalization efforts in almost all aspects of business, in certain cases, digital is making the shift from being business support, to being the business itself. As a result, the importance of establishing a digital presence is paramount to business continuity, often also serving as a sign of livelihood (actively conducting business) from a consumer's point of view. This holds true for not only large conglomerates and multi-national enterprises, but also small and medium-sized enterprises (SMEs), entrepreneurial ventures and start-ups.

While major digitalization adoption efforts may not be a focal point nor a necessity for all types of businesses (at present or in the future), the important role that the Internet in particular has played in democratizing access to the digital realm and subsequently, also, lowering the barrier of entry to starting a business, is undeniable. Moreover, with Internet access being recognized as a fundamental human right in certain jurisdictions, more information and services can subsequently be offered online thereby increasing the number of potential outcomes the Internet has to offer (Louw and Von Solms 2019). This holds true not only in developed economies, but also in developing economies, with Cloete, Courtney, and Fintz (2002) noting in the early 2000s already that e-commerce and Internet technologies could specifically benefit SMEs due to the fact that e-commerce could contribute to improving an SME's ability to compete with larger organizations and possibly also to operate on an international scale – a timeless statement, still very much relevant today.

By embracing technology to this extent, in certain cases, digital business creation in its entirety can now be done in a matter of seconds by simply filling out an online form. Similarly, offline businesses may choose to create a digital presence (in the form of a website, social network profile, blog, etc.) by simply filling out an online form. Often, however, SMEs may find that they do not understand and/or possess all of the necessary skills in maintaining an online venture and/or online presence, in-house. Furthermore, SMEs in particular may

experience steeper learning curves and longer implementation timeframes as a result of restricted time and resources for e-commerce development and technology adoptions (Canziani and Welsh 2016). These limitations may be exaggerated in developing economies and related resource-scarce environments, leading to frustration (Ngoasong 2018).

As a result, designing and maintaining an online presence may often be outsourced to professional developers, agencies or designers, subsequently becoming a major, and often recurring, expense – a luxury that SMEs do not necessarily possess.

As previously mentioned, however, in many cases digital is making the shift from being business support, to being the business itself, with the business of website creation and hosting being no exception. Subsequently, numerous third-party services, ranging from free to paid, delivering basic to very technical website services, are available to SMEs to make use of in order to create an online presence in the form of a website.

As different SMEs have different needs, different financial capacities and different technical capabilities, naturally, different platforms, approaches or combinations of these, may be chosen in the process of developing their website. Despite the fact that there are numerous guides available in following this process (Fabian 2017) and that the adoption of e-commerce in small and medium enterprises (SMEs) is a much-researched topic in developed and developing nations (Shemi and Procter 2018), currently, there is no way to establish which approach would be most suitable based on the needs of individual SMEs. This is a shortcoming in the existing research literature and indicates the need to formulate a model to assist in this endeavour. As a result, in order to formulate such a model, three hypotheses merit further investigation:

- H1: Cost is an important factor when considering website implementation techniques.
- H2: Technical skills at hand is an important factor when considering website implementation techniques.

- H3: It is possible to determine the most suitable website implementation technique for SMEs based on the cost involved and the technical skills at hand.

Based on these hypotheses, our main research question is identified as follows: RQ1 – Based on any SME's financial capacity and technical skills at hand, is it possible to determine the most suitable website implementation technique?

In order to address this question, we begin our discussion by acquainting the reader with the core components that form part of almost any website, next. This is an important discussion as we subsequently analyze how each component may affect cost (H1) or skill at hand (H2) when choosing a suitable website implementation technique.

#### Website components

Websites may possibly contribute to enhancing the online presence of any organization on a global scale and, regardless of locality, typically rely on three core components: a Uniform Resource Locator (URL), a hosting provider and the website itself.

##### 1. Uniform Resource Locator (URL)

A website's Uniform Resource Locator (URL), often also referred to as the website's domain name or address, typically allows users to access the website through the World Wide Web by means of an internet connection. URLs are displayed in the address bar of a web browser with a URL for HTTP (or HTTPS) generally comprising three or four components (IBM Knowledge Centre 2018):

- (1) A scheme: The scheme identifies the protocol to be used to access the resource on the Internet and typically can be HTTP (without SSL) or HTTPS (with SSL). Other, less common options include ftp, mailto, file, data, and irc.
- (2) A host: The host name identifies the host that holds the resource, for example, [www.myexample.com](http://www.myexample.com). A server provides services in the name of the host and host names can also be followed by a port number. Generally speaking, servers use the well-known port numbers for HTTP and HTTPS, so most HTTP URLs omit the port number.
- (3) A path: The path identifies the specific resource in the host that the web client wants to access. For example, `styling/css/styles.css`.
- (4) A query string: If a query string is used, it follows the path component, and provides a string of information that the resource can use for some purpose (for example, as parameters for a search or as data to be processed).

The scheme and host components of a URL are not defined as case-sensitive, but the path and query string are case-sensitive. Typically, the whole URL is specified in lowercase.

The main component that SMEs have to concern themselves with, however, is the host, as the chosen URL of a particular website plays an important role in

increasing its visibility and one should ideally choose a URL that is (Louw and Von Solms 2016):

- Descriptive – a URL should ideally provide end users with an initial idea of its website's contents.
- Easy to remember – short, simple URLs are naturally easier to remember.
- Adaptable – an ideal URL is specific, yet vague enough to stay relevant through content evolution that may occur over time.

In the event of a business choosing to reserve a URL of their liking, they firstly need to ensure the availability of their chosen domain, and secondly, register the domain. This may be done by making use of third parties such as GoDaddy.com, etc. and renewed annually. It is of course possible to own a domain name without hosting any content and SMEs are encouraged to reserve their chosen domain name(s) as soon as possible, as free or expired domain names may be purchased and held for ransom by third parties.

Once a URL is confirmed, a hosting provider can host a website's code and content at the chosen URL.

##### 2. A hosting provider

Hosting providers ensure that a website's required code is stored on a webserver, thereby making it accessible to the World Wide Web at its specified URL (as discussed in the previous section).

Typically, a monthly hosting fee is payable, with storage capacity and the support for server-side scripting being important factors to take into consideration when choosing a hosting provider.

##### 3. Website itself

Once a URL and hosting provider have been chosen, the process of designing, developing, deploying and updating a website commences. While website design is undoubtedly of utmost importance to ensure a successful online presence, the scope of this paper does not include a discussion on the actual contents that should be included although readers are referred to a website checklist developed by Thelwall (2000) to assist in this endeavour.

By obtaining each component required to set up a website, an organization's online presence is arguably increased from being inactive to planned, undertaking and active as is summarized in Table 1.

As we have just discussed the essential components of a website, it is important to note that by obtaining each component individually, a cost may be involved. For example, a custom URL/domain is typically renewed annually, outsourced hosting costs typically run as a monthly expense, and external website design costs may include a once-off fee in addition to a monthly maintenance or update fee.

As not all SMEs have access to the same funds, the importance of cost in creating an online presence by means of a website is highlighted in this instance. This observation supports hypothesis 1 (H1) which states that cost is an important factor when considering website implementation techniques. This is subsequently also the

Table 1: Website online presence maturity components.

		URL	Hosting	Website
1	Planned	X		
2	Undertaking	X	X	
3	Active	X	X	X

first critical component to take into consideration in our model.

In order to minimize the financial expenditure of a website's development, SMEs may subsequently choose to 'insource' certain tasks to in-house staff. Making use of only a default URL/domain, insourcing hosting costs by setting up a local server, and self-designing and maintaining website content can all contribute to lowering expenses. This does, however, require slightly more advanced technical skills to pull off – something that not all SMEs may necessarily possess in-house.

Alternatively, by making use of third-party website creation platforms, SMEs are provided with an all-in-one approach, with start-up costs, default URLs and basic design being free, and additional functionalities being purchasable on demand. Once again, however, a certain level of technical skill is still required which supports hypothesis 2 (H2) by indicating that technical skill at hand is an important factor when considering website implementation techniques. This subsequently forms the second critical component taken into consideration in our model.

Of course, the chosen approach, and subsequently also the associated cost and technical skills required, will greatly depend on a particular website's purpose. This is explored in more detail next.

#### Website purpose

Thelwall (2000) points out that a website's purpose typically varies depending on the required financial engagement that is expected. This may vary from a simple web presence to a complete e-commerce solution that sells products online – a relevant observation that has stood the test of time.

Five main categories of websites, classified on their intended purpose are further summarized in Table 2.

From this discussion, two distinct types of websites can be identified based on the containing information including:

- (1) Basic presence: Purely for advertising/informative/marketing reasons.

- (2) Advanced presence: Online trading/sales/capturing or processing of user or valuable information (could also include information contained on a basic presence website).

Based on a website's presence, secure hosting through certificates and Secure Socket Layer (SSL) technologies should be considered. A website's online presence maturity can thus be broken up into additional segments under 'hosting' to include basic hosting (no SSL) and advanced hosting (with SSL).

This is visible in Tables 3 and 4 indicating both basic and advanced hosting options as forming part of a website's online presence maturity components.

While the practice of implementing SSL on a website is widely encouraged, there is, once again, possibly a financial implication. As such, websites with only a basic presence do not necessarily require this from the start, however, it is almost mandatory for websites looking to capture or process sensitive transactions, data or information. Either way, it is important to either obtain an SSL certificate, or to choose a hosting provider that includes an SSL certificate. This evaluation should be made on a case-to-case basis.

Armed with this knowledge, a decision may then be made in choosing an appropriate platform/approach/technique for the actual implementation and realization of a website.

#### Platform choices

With a better understanding of core website components and having decided on a website's main purpose, the elements of cost and technical skill come into play when deciding on an appropriate website realization platform/approach/technique.

Furthermore, in order to lower costs, SMEs may choose to insource certain functionalities, especially at the start of launching a website. Insourcing does, however, result in the need for higher technical skills and know-how to be in place in order to maintain such a system, bringing to light the cost vs. skill trade-off.

Based on this trade-off, and applying it to the three core components of a website (i.e. URL, hosting provider and web design), various combinations ranging from

Table 2: Websites classified by levels of financial engagement (Thelwall, 2000).

Type of presence	Typical site content
1. Company information	General details about the business including contact information: (postal) address, email and telephone number.
2. Product information	All of the above, plus specific details of available products.
3. Online catalogue	All of the above, plus pricing information.
4. Online mail order	All of the above, plus the ability to buy by mail order.
5. Cyber store	All of the above, plus the ability to accept payment online through an automated process.

Table 3: Website online presence maturity components with basic hosting (no SSL).

		URL	Hosting		Website
			Basic	Advanced	
1	Planned	X			
2	Undertaking	X	X		
3	Active	X	X		X

Table 4: Website online presence maturity components with advanced hosting (SSL).

		URL	Hosting		Website
			Basic	Advanced	
1	Planned	X			
2	Undertaking	X		X	
3	Active	X		X	X

Table 5: Insourced and outsourced website components combinations.

Approach number	Outsourced/insourced platform choices [domain, hosting, design]
1	All insourced [insourced URL, insourced hosting, insourced design]
2	Outsourced hosting [insourced URL, outsourced hosting, insourced design]
3	Outsourced design [insourced URL, insourced hosting, outsourced design]
4	Outsourced hosting and design [insourced URL, outsourced hosting, outsourced design]
5	Outsourced domain [outsourced URL, insourced hosting, insourced design]
6	Outsourced domain and hosting [outsourced URL, outsourced hosting, insourced design]
7	Outsourced domain and design [outsourced URL, insourced hosting, outsourced design]
8	All outsourced [outsourced URL, outsourced hosting, outsourced design]

completely insourced to completely outsourced approaches, is presented in Table 5.

When referring to an insourced URL, an indication is made to the assignment of a default or non-customisable URL, where an outsourced URL refers to purchasing a custom domain through a registrar and hosting content at that domain. An insourced URL is thus arguably less expensive and less technical to configure, while an outsourced domain is more expensive and more technical to implement.

With insourced hosting, an internal or local web server is set up and maintained on site, whereas outsourced hosting makes use of a third-party's servers for hosting purposes. Insourced hosting can thus arguably be less expensive, but certainly more technical to configure, while external hosting may be more expensive, yet less technical.

Finally, with insourced design, an internal member of staff is responsible for all aspects of the web development and design. Insourced design can thus be less expensive than outsourcing the design to a third party who may require once-off fees in addition to monthly maintenance fees, etc. Insourced design, does, however, require more technical skills and knowledge to be present in-house.

By taking the various options of insourcing and outsourcing into account, finding an approach that can maximize an online presence (visibility) through the deliverance of a website, while taking cost and technical skill at hand into account is the envisaged result.

The formulation of a model to assist in this endeavour is discussed in more detail next.

#### Development of a model

Based on a hands-on approach by the researchers, a fully insourced website (approach number 1) that is privately owned and operated by an entrepreneur (with advanced technical skills) is selected. The effects of systematically outsourcing individual website components on cost and skill are subsequently analyzed. Similarly, a fully outsourced website (approach number 8) owned by an SME (with no technical skills) was also selected. The effects of systematically insourcing individual website components on cost and skill are subsequently analyzed. We combine the results to create a complete model.

Based on the discussion in the previous section, we choose a binary increment and decrement system to represent the findings in a most simplistic manner. This approach allows an increase or decrease by a value of 1 per website component. This approach allows us to obfuscate the technical and financial differences that exist from one website, operational environment and business context to the next.

In order to establish what effect the insourcing, outsourcing and combination of insourcing and outsourcing of a URL, hosting and web design subsequently has, we calculate and tabulate the scores for cost (Table 6) and skill (Table 7) separately.

In the case of costs, -1 indicates a lower cost implication while +1 indicates a higher cost implication (based on the discussion of increase and decrease in the previous section). In the case of skill, -1 indicates a lower skill impact while +1 indicates a higher skill



Table 6: Insourced and outsourced website components cost impacts.

1	All insourced [insourced URL, insourced hosting, insourced design]	$[-1, -1, -1] = -3$
2	Outsourced hosting [insourced URL, outsourced hosting, insourced design]	$[-1, +1, -1] = -1$
3	Outsourced design [insourced URL, insourced hosting, outsourced design]	$[-1, -1, +1] = -1$
4	Outsourced hosting and design [insourced URL, outsourced hosting, outsourced design]	$[-1, +1, +1] = 2^*$
5	Outsourced domain [outsourced URL, insourced hosting, insourced design]	$[+1, -1, -1] = -2^*$
6	Outsourced domain and hosting [outsourced URL, outsourced hosting, insourced design]	$[+1, +1, -1] = 1$
7	Outsourced domain and design [outsourced URL, insourced hosting, outsourced design]	$[+1, -1, +1] = 1$
8	All outsourced [outsourced URL, outsourced hosting, outsourced design]	$[+1, +1, +1] = 3$

Table 7: Insourced and outsourced website components skill impacts.

Approach number	Outsourced/insourced platform choices [domain, hosting, design]	Skill impact
1	All insourced [insourced URL, insourced hosting, insourced design]	$[-1, +1, +1] = 2^*$
2	Outsourced hosting [insourced URL, outsourced hosting, insourced design]	$[-1, -1, +1] = -1$
3	Outsourced design [insourced URL, insourced hosting, outsourced design]	$[-1, +1, -1] = -1$
4	Outsourced hosting and design [insourced URL, outsourced hosting, outsourced design]	$[-1, -1, -1] = -3$
5	Outsourced domain [outsourced URL, insourced hosting, insourced design]	$[+1, +1, +1] = 3$
6	Outsourced domain and hosting [outsourced URL, outsourced hosting, insourced design]	$[+1, -1, +1] = 1$
7	Outsourced domain and design [outsourced URL, insourced hosting, outsourced design]	$[+1, +1, -1] = 1$
8	All outsourced [outsourced URL, outsourced hosting, outsourced design]	$[+1, -1, -1] = -2^*$

impact (based on the discussion of increase and decrease in the previous section).

In both cases, in order to avoid neutral classifications, i.e. approaches that are neither expensive, nor inexpensive, neither technical, nor non-technical, 0 (zero) is not included on the classification scale. As such, basic arithmetic is affected, thereby allowing,  $-1 + 1 = 1$  and  $+1 -1 = -1$ . The calculations where this adjustment is made are indicated with an asterisk (\*).

Table 6 indicates the results of the cost impact calculation for each of the eight approaches identified in Table 5.

Figure 1 in turn visualizes the results obtained in table A on a linear scale ranging from low cost (-3) to high cost (+3).

Table 7 indicates the results of the skill impact calculation for each of the eight approaches identified in Table 5.

Figure 2 in turn visualizes the results obtained in Table 7 on a linear scale ranging from non-technical (-3) to technical (+3).

When combining the cost and technical skill plots of Figures 1 and 2, we are presented with the Combined Cost and Technical Skill Model for Website Development as depicted in Figure 3.

Upon closer inspection, three distinct regions can be identified in the model including:

- (1) Low cost, highly technical approaches (approach 1 and 5);
- (2) Medium cost, medium technical approaches (approach 2, 3, 6 and 7); and
- (3) High cost, non-technical approaches (approach 4 and 8).

A different representation of the results obtained in Figure 3 is presented in Figure 4 where approaches with impact scores of -3 and -2 are regarded as low (1), impact scores of -1 and 1 as medium (2), and impact scores of 2 and 3 as high (3).

From the results presented in Figure 4, it becomes more evident than cost and skill are inverses of one another. This implies that the higher the level of technical skill possessed in-house, the more tasks may be insourced and subsequently, the lower expenses may be kept. Subsequently, the inverse is also true, as the lower the level of technical skills possessed in-house, the more tasks need to be outsourced and subsequently, the higher expenses may become.

Based on this cost and skill trade-off, however, a more systematic approach to determining which technique or approach is more suitable for website implementation has been presented in the form of the Combined Cost and Technical Skill Model for Website Development (Figure 3).

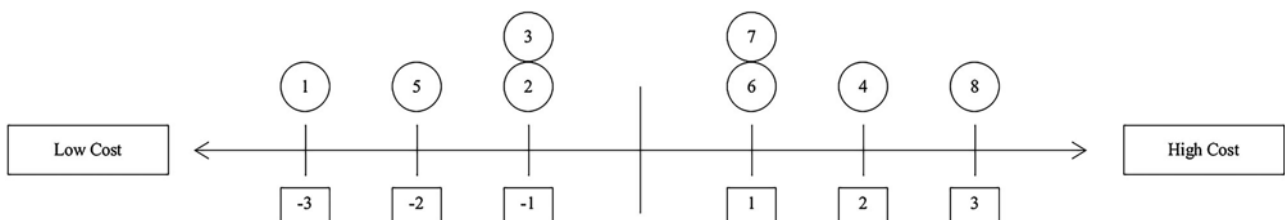


Figure 1: Website development approaches categorized from low cost – high cost.

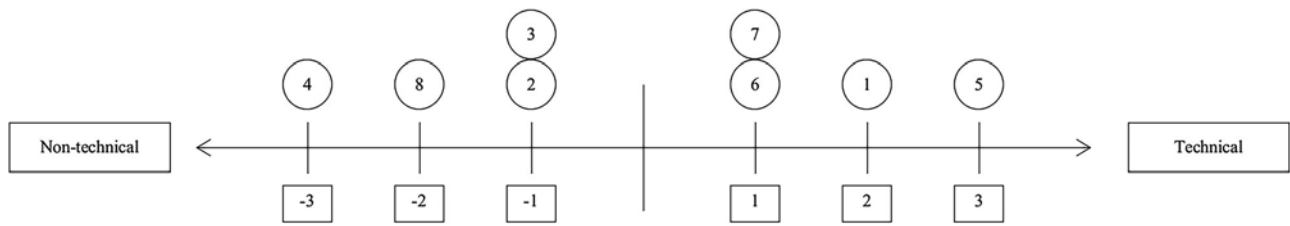


Figure 2: Website development approaches categorized from non-technical – technical.

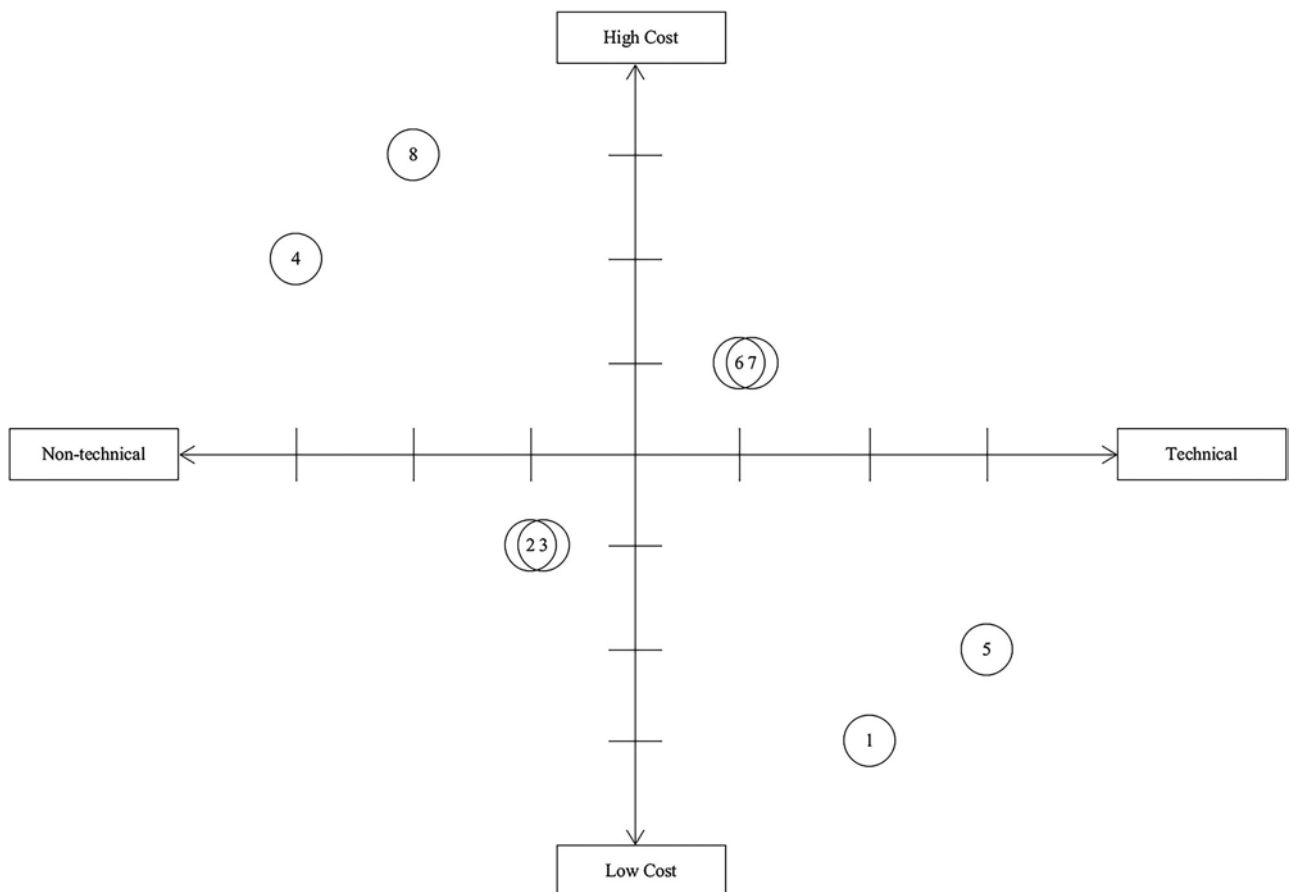


Figure 3: Combined cost and technical skill model for website development.

The deliverance of this model subsequently addresses hypothesis 3 (H3) by demonstrating that it is possible to determine the most suitable website implementation technique for SMEs based on the cost involved and the technical skills at hand.

#### Discussion and conclusion

In the previous section we identified a total of eight approaches that could be followed when choosing to implement a website, focusing primarily on a cost vs. skill trade-off. Table 8 represents a consolidated summary of each approach including its description, cost impact, cost impact level, skill impact and skill impact level.

While approaches 1 and 5 have very low-cost implications, the technical knowledge needed to set up and maintain insourced hosting and design is very high. SMEs with high levels of technical knowledge are thus capable of maintaining and developing their own

website very comfortably, suffering very little when considering expenses.

The exact polar opposite are approaches 4 and 8 where a very high cost is involved due to low technical skills and, subsequently, outsourcing of hosting and design to external parties. These may include web design agencies, organizations or freelancers and, as previously mentioned, may become a major and often-recurring expense.

With approaches 2, 3, 6 and 7, however, more balanced alternatives are offered by combining insourcing and outsourcing of individual components. This keeps cost at a medium level, while requiring a medium level of skill. This is visually illustrated in Figure 4 where both cost and skill meet at the same level.

As previously mentioned, in certain cases, digital is making the shift from being business support, to being the business itself – a concept that holds true for web development platforms too. Third-party platforms that

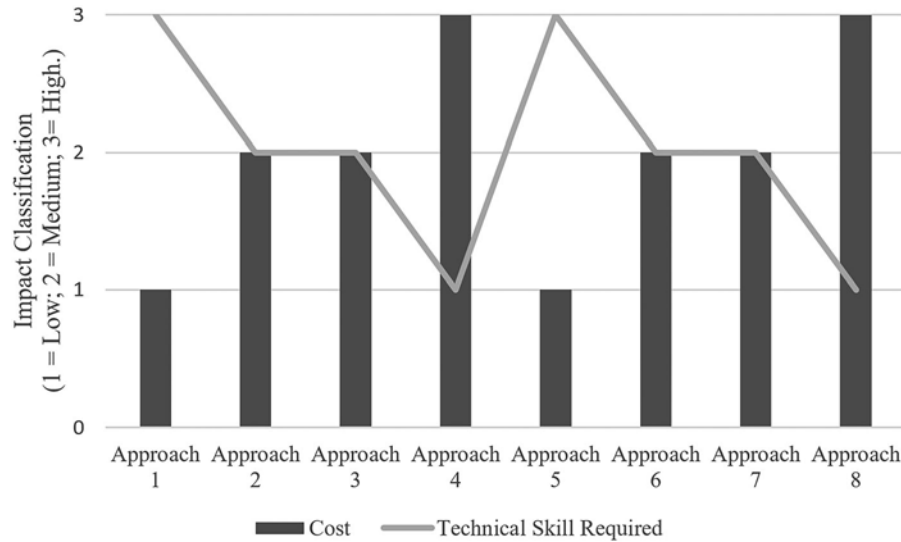


Figure 4: Website development approaches: Cost vs. Skill.

Table 8: Consolidated summary of website development approaches including cost and skill impact levels.

#	Outsourced/insourced platform choices [domain, hosting, design]	Cost impact	Cost impact level	Skill impact	Skill Impact level
1	All insourced [insourced URL, insourced hosting, insourced design]	$[-1, -1, -1] = -3$	1	$[-1, +1, +1] = 2^*$	3
2	Outsourced hosting [insourced URL, outsourced hosting, insourced design]	$[-1, +1, -1] = -1$	2	$[-1, -1, +1] = -1$	2
3	Outsourced design [insourced URL, insourced hosting, outsourced design]	$[-1, -1, +1] = -1$	2	$[-1, +1, -1] = -1$	2
4	Outsourced hosting and design [insourced URL, outsourced hosting, outsourced design]	$[-1, +1, +1] = 2^*$	3	$[-1, -1, -1] = -3$	1
5	Outsourced domain [outsourced URL, insourced hosting, insourced design]	$[+1, -1, -1] = -2^*$	1	$[+1, +1, +1] = 3$	3
6	Outsourced domain and hosting [outsourced URL, outsourced hosting, insourced design]	$[+1, +1, -1] = 1$	2	$[+1, -1, +1] = 1$	2
7	Outsourced domain and design [outsourced URL, insourced hosting, outsourced design]	$[+1, -1, +1] = 1$	2	$[+1, +1, -1] = 1$	2
8	All outsourced [outsourced URL, outsourced hosting, outsourced design]	$[+1, +1, +1] = 3$	3	$[+1, -1, -1] = -2^*$	1

offer all-in-one website solutions become of particular interest in this case, especially as far as approaches with outsourced hosting are concerned. This is made possible by website development platforms such as Wix, Jimdo, Strikingly, Shopify, WebsiteBuilder.com, GoDaddy.com, SquareSpace, Virb and WordPress (TechBoomers 2017), to mention only a few. Additionally, such platforms often provide a drag-and-drop interface design option which implies that little to no programming or technical skills are needed to design or maintain the website. Moreover, these platforms often also include a default, free URL (as a subdomain of the service provider's URL) with the option of mapping to a custom URL at a later stage. This is all made possible by simply signing up to the chosen platform by filling out an online form and is applicable to both approaches 2 and 6.

Approach 2 involves signing up, choosing a default domain (usually a sub domain of the hosting provider/development platform) and designing one's own website (templates and drag-and-drop design often provided, i.e. no programming skills required).

Approach 6 in turn requires signing up, choosing a default domain (usually a sub domain of the hosting provider), obtaining a custom domain (on the platform itself or via a third party such as GoDaddy.com) and pointing it to the existing default domain as well as designing one's own website (templates and drag-and-drop design often provided, i.e. no programming skills required).

Approach 2 can thus be seen as the foundation phase of approach 6 and, as such, approach 2 can be identified as the least expensive solution that requires the least technical skills – an ideal solution for SMEs wishing to create a basic online presence. Once the basics have been mastered, SMEs may choose to upgrade their website by purchasing and linking a custom domain to provide a more professional feel. This does come at an additional expense and may require additional technical skills to maintain (depending on the platforms chosen) and subsequently results in approach 6.

Approaches 2 and 6 are therefore recommended for SMEs to make use of, to have an initial web presence that can be maintained in-house. A summary of these

Table 9: Recommended basic website development approaches for SMEs.

	Outsourced/ custom URL	Outsourced (third party) hosting	Outsourced (third party) web design	Example
Approach 2	No	Yes	No	Self-designed Weebly website with default URL such as <a href="http://mysite.weebly.com">mysite.weebly.com</a> .
Approach 6	Yes	Yes	No	Self-designed Weebly website pointing to custom URL from GoDaddy such as <a href="http://mysite.com">mysite.com</a> .

two approaches as well as listing examples is summarized in Table 9.

Once SMEs have decided on an appropriate approach to implement their website, further optimization can be made in enhancing the visibility, accessibility and content delivery of the actual website content (Louw and Von Solms 2016) by making use of tools such as the basic website checklist (which is still valid in modern-day commerce) as proposed by Thelwall (2000).

This is important as in the age of the digital revolution, websites are a critical component in establishing an online organizational presence and, as previously mentioned, often also serve as a sign of livelihood (actively conducting business) from a consumer or end user's perspective.

Moreover, due to the vast electronic device ecosystem that underlays the digital revolution, end users may adopt a multi-platform approach whereby numerous devices (such as smartphones, tablets, phablets, laptops, desktops, etc.) are used to access an online resource (Louw 2017). It is thus important to provide a seamless online experience across different types of devices, thereby increasing overall accessibility and exposure of, for example, a website. This may subsequently result in an improved proportion of website visitors that make a purchase, also known as the website conversion rate (Di Fatta, Patton, and Viglia 2018). Improving this rate is particularly important to SMEs that have conventionally lagged behind larger firms.

With various website implementation options and platforms to choose from, SMEs in particular may find it more helpful to base their initial platform and implementation technique decisions on a cost vs. skill trade-off. In order to assist in this endeavour, this research presents the Combined Cost and Technical Skill Model for Website Development. As a result, we answer our research question (RQ1) successfully by introducing the model. This implies that based on any SME's financial capacity and technical skills at hand, is it possible to determine the most suitable website implementation technique.

While testing or obtaining feedback on the proposed model falls outside the scope of this paper, this research provides a point of departure in encouraging future scholarly discourse on the move to digital, while empowering SMEs, especially in resource-scarce contexts, to ride this digital wave.

#### Disclosure statement

No potential conflict of interest was reported by the authors.

#### ORCID

Candice Louw  <http://orcid.org/0000-0001-7847-3551>  
Cecile Nieuwenhuizen  <http://orcid.org/0000-0003-4925-3212>

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